



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,966	03/15/2005	Andrew Forbes	424662008900	7610
25227 7590 01/09/2008 MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 400 MCLEAN, VA 22102			EXAMINER ALI, MOHAMMAD M	
			ART UNIT 3744	PAPER NUMBER
			MAIL DATE 01/09/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/508,966

Applicant(s)

FORBES ET AL.

Examiner

Mohammad M. Ali

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 10-11 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kiczek (5,220,803). Kiczek discloses a refrigerating apparatus for chilling an object (food), the refrigerator apparatus forming a part of refrigerator 28 and comprising a chamber having a longitudinal axis, an inlet 16/22 and outlet 32 spaced along the longitudinal axis, a device generating a fluid flow through an inlet 22 within the chamber and a structure for causing the fluid flow to follow a helical path about the longitudinal axis within the chamber between the inlet 22 and the outlet 32 (see column 2, lines 52-55) and around the object (food) to be chilled, the fluid being in contact with the object(food). See Fig. 1, column1, line 61 to column 2, line 59.

Claims 1--11 and 14-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishino et al., (JP 3009600 U). Ishino et al., disclose a refrigerating apparatus for chilling an object 6, the refrigerating apparatus forming a part of refrigerator 3 and comprising a chamber having a longitudinal axis, an inlet on top of a duct 8b and outlet 14b spaced along the longitudinal axis, a device/fan 11 generating a fluid flow through an inlet within the chamber and a structure for causing the fluid flow to follow a helical

path 7b about the longitudinal axis within the chamber between the inlet on top of the duct 8b and the outlet 14b and around the object 6 to be chilled, the fluid being in contact with the object 6; an evaporator 2; a support is provided for supporting the object 6 spaced from the wall/casing 1 of the chamber (the support is not shown but inherent). See Fig. 1A and enclosed machine translation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishino et al. Ishino et al., disclose the invention substantially as claimed as stated above except plurality of chambers each chamber housing an object to be chilled. The plurality of chambers with plurality of housing for holding multiple objects is a duplicate use of a single housing for holding multiple single objects and it will be an obvious repetition of the claim with single object.

Response to Arguments

Applicant's arguments with respect to claim 1-12 and 14-21 have been considered but are not persuasive. The Applicant argued, :The Examiner does not identify the structure by which the fluid is caused to flow a helical path, nor does the Examiner indicate that Kiczek discloses the corresponding method step. The Examiner

disagrees. The refrigerator of Kiczek is of mechanical spiral type refrigerator (see column 2, lines 12-13). The cryogen vaporizing inside of the immersion freezer 10 will flow out of the discharge 22 and into the housing 28 (see column 2, lines 22-24). Again the the exhaust fan is so constructed that equal volume of cryogen are admitted through the gas inlet 49 of the freezer 26 and discharged from outlet 32 of the freezer 26. Flow of vaporized cryogen is shown by arrows 50. (see column 2, lines 27-31). Although there is no numeral 50 one can easily see the two gas inlets 32 and 49 and the gas exit 32 and the arrows (plural arrows) in between the gas inlets and outlet indicating the spiral flow path of the cryogen fluid as well as the same spiral flow path of the food product. Again, the vaporized cryogen from the immersion freezer 10 is directly injected into the mechanical refrigeration unit 26 for contact with the food to efficiently and effectively utilize both the vaporized cryogen and the air recirculating inside the freezer (spiral type freezer). Regarding method step for placing an object to be chilled in a chamber is being done by the conveyor in the mechanical spiral refrigerator. The further disclosure of the method claims are same as the apparatus claim which are anticipated by Kiczek as explained above. Therefore, the rejections are ok.

The Applicant further argued, the fluid flow produced in Ishino does not come into contact with object to be chilled as claimed---". The Examiner again disagreed. The object of the claimed invention as seen Fig. 1, 3 and 4 is a cylindrical bottle against which the helical fluid is effected and accordingly cooling the bottle containing food stuff by touching the cooling fluid outer surface of the cylindrical bottle.. In the same way Ishino's helical cooling fluid flow cooling the cylindrical object 6 by touching the outer

surface of cylindrical object 6 by the cooling fluid. The claimed cylindrical object bottle does not make any difference from the cylindrical object of Ishino. Regarding claim 12 for plurality of chambers is nothing but an obvious duplication of a single chamber as disclosed by Ishino. Therefore, rejections are ok. **THIS ACTION IS MADE FINAL.**

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad M. Ali whose telephone number is 571-272-4806. The examiner can normally be reached on maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/508,966
Art Unit: 3744

Page 6

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


MOHAMMAD M. ALI
PRIMARY EXAMINER